

## 40%T, 3.3%C Acrylamide/Bis-Acrylamide Solution (29:1)

Contains 386.8 g/L acrylamide and 13.2 g/L bis-acrylamide in Ultra Pure Water  
Sterile-filtered  
DNase, RNase and protease-none detected

Catalog Number **ML 002-05**  
Storage Temperature 2~8°C

### Product Description

Acrylamide/N,N'-methylenebisacrylamide (Acrylamide/bis-acrylamide) solution is an essential ingredient in making poly acrylamide gel, which is used in electrophoresis of protein or nucleic acid. In the present product, acrylamide and bis-acrylamide are pre-dissolved at various concentrations for customer convenience and safety. The gel matrix is formed by free radical polymerization of acrylamide and comonomer crosslinker (bis-acrylamide).

The gel pores size is determined by two parameters:

- Total monomer concentration (%T)
- The weight percentage of crosslinker (%C)

$$\%T = \{ \text{acrylamide (g)} + \text{bis-acrylamide (g)} \} / \text{volumn (ml)} \times 100$$

$$\%C = \text{bis-acrylamide (g)} / \{ \text{acrylamide (g)} + \text{bis-acrylamide (g)} \} \times 100$$

Gel with T=20% is prepared with 20% of acrylamide and bis-acrylamide. As %T is higher, the pores size of the gel are smaller. Gel with T=20%, C=5% is prepared with 20% of acrylamide and bis-acrylamide and the weight percentage of the bis-acrylamide is 5% from the total weight of the acrylamide and bis-acrylamide. Welgene provides two different concentrations for acrylamide/bis-acrylamide solutions (30% and 40%), and three different cross-linking ratios exist for each concentrations percentage (19:1, 29:1, and 37.5:1).

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### Storage/Stability

Acrylamide/bis-acrylamide solution should be stored at 2~8°C. And acrylamide/bis-acrylamide solution needs to be stored away from light. Acrylamide and bis-acrylamide slowly change into acrylic acid and bis-acrylic acid, respectively, over long periods of time. Deterioration of the solution may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

### Biological Performance Characteristics

The biological characteristics of the acrylamide/bis-acrylamide solution are tested using gel electrophoresis of protein or nucleic acid, and compared with the resolution of the parallel bands in standardized control solution.

### Precautions

For *In Vitro* Use Only

Components	g/L ML 002-05
Acrylamide	386.8
bis-acrylamide	13.2

Product Profile	ML 002-05
Appearance	Clear colorless solution
DNase, RNase, and Proteinase	None Detected
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.

### References

Laemmli, U.K., Nature, 227, 680 (1970).